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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/768,885 01/23/01 MORELAND

T BFGH.P0210US

EXAMINER

QM01/0328

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ART UNIT

PAPER NUMBER

3742

DATE MAILED:

03/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/768885

Applicant(s)

Moreland et al

Examiner

Jeffery

Group Art Unit

3742

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-23 is/are pending in the application.
- Of the above claim(s) 1-12 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 13-23 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 1/23/01 is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Restriction to one of the following inventions is required under 35 USC 121:

I. Claims 1-12, drawn to an electrically heated deicer panel, classified in Class 219, subclass 202.

II. Claims 13-23, drawn to a method of making an electrically heated deicer panel, classified in Class 29, subclass 611.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as joining the inner support layer to the outer cover layer without necessarily joining the stitched heater layer to the inner support layer and outer cover layer as is claimed in the broadest method claims.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

During a telephone conversation with Cynthia Murphy on 3/20/01, a provisional election was made without traverse to prosecute the invention of Group II, claims 13-23. Affirmation of this election must be made by applicant in responding to this Office action. Claims 1-12 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

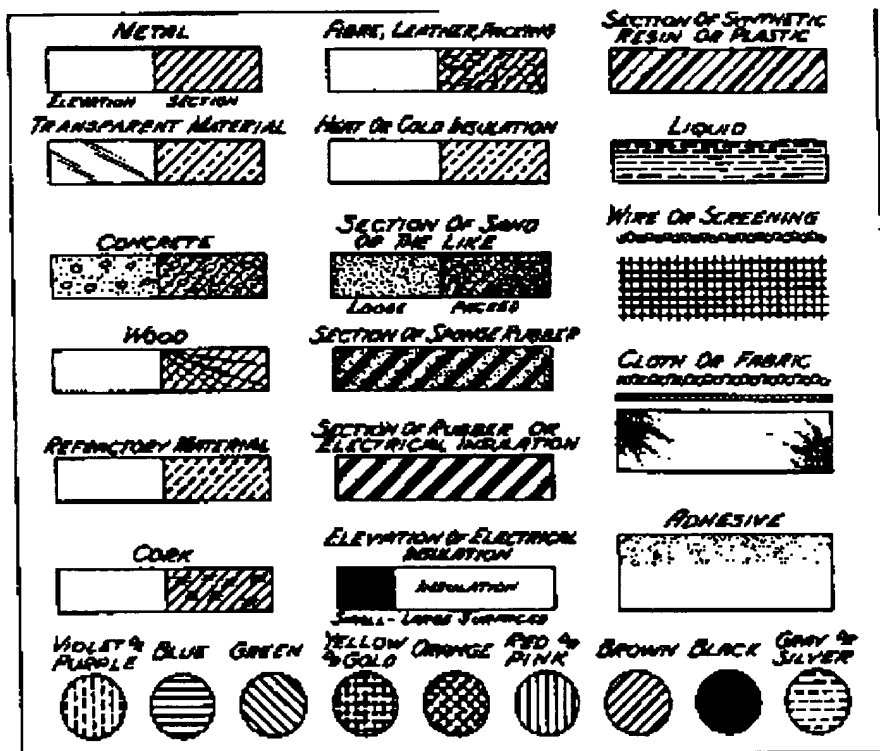
The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

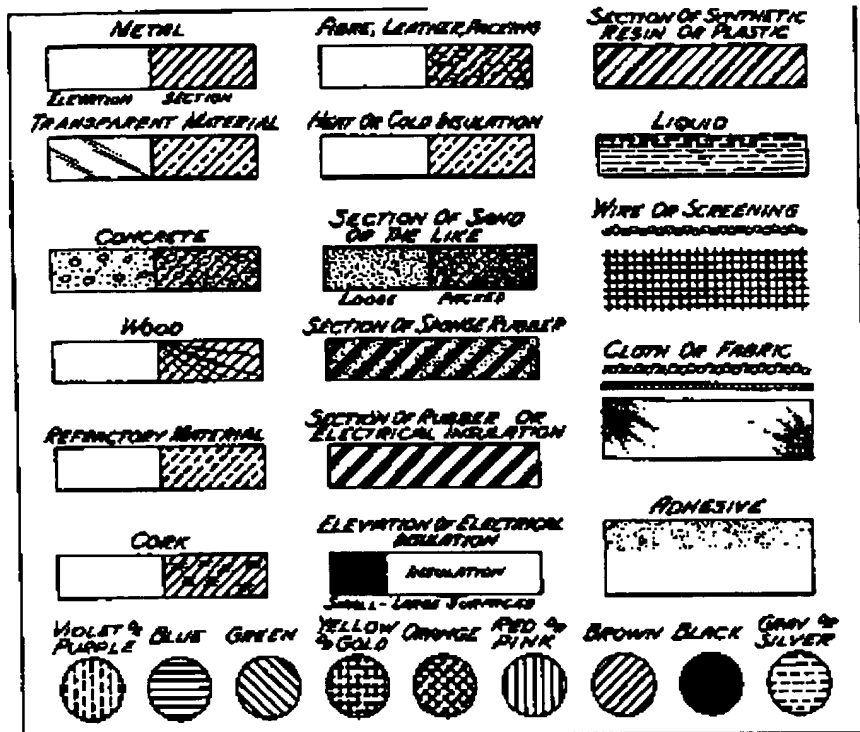
The following title is suggested: "Electrically Heated Aircraft Deicer Panel With Stitched Heater Strand."

The Abstract of the Disclosure is objected to because of the following informalities: In line 1, "including" must be changed to "includes." Correction is required. See MPEP 608.01(b).

The drawings are objected to because of the following informalities:

An **additional cross sectional figure** is needed showing each layer of the finished deicer with proper cross sectional hatching for clarity. Proper cross-sectional hatching is required to properly denote appropriate materials in accordance with MPEP 608.02 (see the drawing below for proper hatching examples).





The response to this action must include a separate letter addressed to the examiner and contain: (1) sketches showing *in red* the drawing changes required above and (2) a request that the examiner approve the changes as shown on the sketches.

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketches with proposed corrections in red ink is required in response to this office action, and may not be deferred.

Claims 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13: No antecedent basis exists for "the electrically conductive wire."

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13 and 16 are rejected under 35 USC 102(b) as being anticipated by Breitner (US3888711). Breitner (US3888711) in Figs. 3-5 and Col. 3, lines 29-49 discloses an

aircraft deicing panel (Col. 1, lines 15-16) with an electric heater wire 13 stitched directly on "heater layer" 15. The heater layer 15 is sandwiched between, and joined to, "inner support layer" 6 and "cover layer" 6. Note that the layer 15 corresponds to layer 5 in Fig. 3. Also, according to Col. 3, lines 44-45, in Fig. 5, the upper thread can be the metal thread and the bottom thread the plastic filament.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligations under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 14, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breitner (US3888711) in view of JP2000-106268. The claims differ from the previously cited prior art in calling for a programmable sewing machine to automatically stitch the heating element. Providing an automatically controlled sewing machine adapted to stitch different patterns via a control circuit is conventional and well known in the art as evidenced by JP2000-106268 noting the Abstract wherein an electric heater wire 2 is sewn via an automatically controlled sewing machine so that a plurality of patterns can be sewn via the same apparatus. In view of JP2000-106268, it would have been obvious to one of ordinary skill in the art to provide an automatically controlled sewing machine to sew the electric heater of the previously described apparatus so that a plurality of patterns can be sewn via the same apparatus.

Claims 13, 14, and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfenninger, Jr. (US2643320) in view of Bloomer (US1142393). Pfenninger, Jr. (US2643320) discloses in Figs. 1-3 an aircraft deicer panel (Col. 1, lines 35-44) with an "inner support layer" 19, "heater layer" 12 with an electrically conductive wire disposed thereon, an "outer cover layer" 19, and a thermal conducting layer 18 disposed therebetween. The claims differ from the previously cited prior art in calling for stitching the heating wire to the heater layer. While the heating wire affixed to the heating layer in Pfenninger, Jr. (US2643320) is not stitched, stitching a heater wire to a core-like heater layer in a planar heating pad is conventional and well known in the art as evidenced by Bloomer (US1142393) noting Figs. 1 and 2 wherein heater wire 2 is stitched to the heater layer 1 via dielectric strand 4. According to Page 1, line 24, a sewing machine can be used. Also, on Page 1, lines 33-38 and lines 97-106, sewing the element to the heater layer provides a faster method of affixing the element as will as facilitating the use of a larger quantity of heating wire per unit area as compared with conventional wire mounting techniques. In view of Bloomer (US1142393), it would have been obvious to one of ordinary skill in the art to affix the electric heater to the heater layer by stitching in the previously described apparatus in order to provide a faster method of affixing the element as will as facilitating the use of a larger quantity of heating wire per unit area as compared with conventional wire mounting techniques.

Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfenninger, Jr. (US2643320) in view of Bloomer (US1142393) and further in view of JP2000-106268. The claims differ from the previously cited prior art in calling for a programmable sewing machine to automatically stitch the heating element. Providing an automatically controlled sewing machine adapted to stitch different patterns via a control circuit is conventional and well known in the art as evidenced by JP2000-106268 noting the Abstract wherein an electric heater wire 2 is sewn via an automatically controlled sewing machine so that a plurality of patterns can be sewn via the same apparatus. In view of JP2000-106268, it would have been obvious to one of ordinary skill in the art to provide an automatically controlled sewing machine to sew the electric heater of the previously described apparatus so that a plurality of patterns can be sewn via the same apparatus.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art should be both separately considered and considered in conjunction with the previously cited prior art when responding to this action.

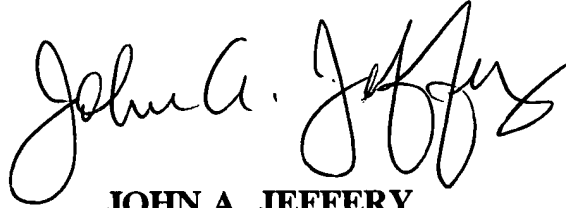
US 289, DE 344, JP 080, JP 066, US 363, JP 931 disclose affixing electric heating wires via sewing. US 696, GB 023, US 618, US 059, FR 678, GB 072 disclose aircraft deicers relevant to the instant invention.

Any inquiry concerning this or earlier communications from the examiner should be directed to John A. Jeffery at telephone number (703) 306-4601 or fax (703) 305-3463.

Serial Number: 09/768885
Art Unit: 3742

The examiner can normally be reached on Monday-Thursday from 7:00 AM to 4:30 PM EST. The examiner can also be reached on alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.

A handwritten signature in black ink, appearing to read "John A. Jeffery". The signature is fluid and cursive, with the first name "John" being more legible than the last name "Jeffery".

JOHN A. JEFFERY
PRIMARY EXAMINER

03/21/01